

## COMPACT EASILY PARSEABLE BINARY FORMAT FOR A CONTEXT-FREE GRAMMAR

### ABSTRACT OF THE DISCLOSURE

A computer-loadable data structure is provided that represents a state-and-transition-based description of a speech grammar. The data structure includes first and second transition entries that both represent transitions from a first state. The second transition entry is contiguous with the first transition entry in the data structure and includes a last-transition value. The last-transition value indicating that the second transition is the last transition from the first state in the data structure. A method is also provided for retrieving information from a binary grammar. The method includes receiving an index into a set of transition entries and converting the index into a memory offset relative to the beginning of the binary grammar, where the offset is based on a memory offset to the beginning of the set of transition entries, the fixed size of each transition entry and the index.